



COOPERATION,
COORDINATION,
SHARING
GEOGRAPHIC DATA

MetroGIS
1999 ANNUAL REPORT

MetroGIS Benefits Study

Data sharing fosters communication

More than four out of five people who have participated at some level in MetroGIS consider their participation an effective use of their time, according to a study conducted by researchers at the University of Minnesota Center for Urban and Regional Affairs.

The greatest benefits of MetroGIS are obtaining useful data, better communication with GIS peers across the region, and an increase in trust about sharing geographic data within the MetroGIS user community, the study revealed.

“The study confirmed that local and regional GIS partnerships are valuable,” said John Siegfried, MetroGIS Policy Board vice chair. “Continuing the MetroGIS collaboration is clearly warranted.”

The study had two parts: interviews with users of regional datasets made available through MetroGIS and a survey mailed to MetroGIS stakeholders, including people who might not have done any data sharing.

One of the biggest benefits of MetroGIS is better access to data, the study showed. Many cities, counties and other agencies are using regional street centerline data for tasks as diverse as controlling mosquitoes and tracking crime.

Another benefit the study revealed is the communication MetroGIS fosters among GIS users. This happens in a variety of settings, from county user groups to committees or work groups where participants from across the region work together to come up with solutions to common data needs among their organizations.

“As people get to know each other better, they also trust each other more,” explained Dr. Will Craig, who headed up the study. “When you know people, you’re less worried that if you make a mistake they’ll rub your nose in it or that they’ll sell your data to someone else. I also sensed an enormous increase of trust in the Metropolitan Council because of the Council’s backing and involvement in the MetroGIS project,” Craig said.

As a group, cities are less likely than other stakeholders to see a benefit from MetroGIS, Craig said. That’s because cities typically pay the county for data, so they see any cost of participating in MetroGIS as “double taxation,” Craig said. “That’s an issue that needs to be dealt with in any financing structure that is developed for MetroGIS.”

Of the 42 percent of those surveyed who said they’ve used DataFinder, at www.datafinder.org, 84 percent were able to find the data they were looking for. More broadly, participants are pleased with the data that MetroGIS is providing, but they are hungry for more.

The survey also asked participants to rank the 22 core functions endorsed by the MetroGIS Policy Board in terms of their value to the respondent’s organization and whether MetroGIS should invest its resources in them. The results, along with other study findings, will help shape the business plan being developed to guide MetroGIS into maturity.

“GIS is a powerful tool for land use and other planning purposes. The Metropolitan Council supports the MetroGIS initiative because it helps advance our smart growth objectives. As the Council, counties, cities and others work collaboratively, we use resources wisely and make the region more competitive.”

Roger Williams,
Member, Metropolitan Council and
MetroGIS Policy Board

MetroGIS: 1999 Highlights

Studies pave way for independent MetroGIS

With the results of two major studies in hand, the MetroGIS Policy Board decided in October to prepare a business plan for establishing MetroGIS as an independent, joint-powers-governed organization.

The first study documented strong support in the region for the coordination, outreach, research and data distribution functions of MetroGIS (see article, page 1). The second study identified the tasks and roles needed for successful regional data sharing, estimated the costs of these tasks, created a model to equitably share the costs, and identified a joint powers board as the best legal structure for long-term governance of MetroGIS.

The cost-sharing model was presented to a forum of regional GIS stakeholders in September. As a result of stakeholder feedback, the model is being changed to assess a larger share of the cost of collaboration on regional, state and federal stakeholders. The role of MetroGIS in the creation of regional datasets is also being scaled back.

A proposal that MetroGIS lead the technical design and implementation of regional datasets was modified to endorse MetroGIS to continue its current role in coordinating technical design and facilitating partnerships to meet regional dataset needs. MetroGIS is no longer proposing to finance the actual data development through subscription fees.

The studies were funded by the Federal Geographic Data Committee, which envisions the establishment of a national spatial data infrastructure (NSDI). Consultants in charge of the cost-sharing study also analyzed the differences and similarities between MetroGIS and the NSDI.

The business plan will guide implementation of MetroGIS as an independent, ongoing entity. The plan will detail staffing needed to support the endorsed core functions of an ongoing organization; propose a modified subscription fee for public sector funding of MetroGIS, with the first fee due at the beginning of 2002; propose an access fee for private sector participation in MetroGIS; and address other issues crucial to regional datasharing. Approval of the plan is expected in March 2000.

“MetroGIS plays the unique role of facilitating the integration of geographic data from across the region, thus creating visual tools that greatly enhance public decisions, like siting new schools.”

Dr. Antoinette Johns
Superintendent, Brooklyn Center Schools
Member, MetroGIS Policy Board

Pilot project demonstrates joining of county parcel data

A pilot project to “stitch together” parcel data from the seven counties in the Twin Cities area demonstrates how the MetroGIS collaboration adds value to the public investment in geographic information systems.

With direction from the MetroGIS Coordinating Committee, a multi-county work team headed by Dakota County Surveyor Gary Stevenson successfully integrated parcel data from the seven counties into a regional parcel dataset with common coordinates and other key attributes, including parcel identification numbers (PIN). The basic steps were: agreeing on a common coordinate system for the data, selecting common attribute data and field names, and adding a FIPS code (county identifier) to each PIN. Each county transformed its ArcVIEW shape files into the agreed-upon coordinate system, and Dakota County GIS specialists integrated the files.

“We didn’t encounter any major problems,” Stevenson said. “It just takes cooperation from the parties to do it. The same process could be used with any data that are being created by the counties,” he added.

The next step will be to identify or create processes to automate updates of the data and select and download any geographic portion of the dataset a local user wants. One scenario is for MetroGIS to maintain an FTP site where the server runs automated procedures to combine,

(Continued on page 3)

From the MetroGIS Policy Board Chair

Region gains with GIS collaboration

The unique role that MetroGIS plays in the Twin Cities area and the nation is coming into sharper focus. As governments at all levels harness the power of GIS to improve their decisions, MetroGIS is demonstrating how collaboration maximizes the value of GIS.

MetroGIS facilitates data sharing among governments, thereby reducing data development and acquisition costs. We foster communication among GIS users through user groups, forums and conferences. We provide the structure to “stitch together” data from multiple jurisdictions. For example, in 1999 a multi-county MetroGIS team, led by Dakota County, developed a process to integrate several counties’ parcel data into a regional parcel dataset. This year MetroGIS participants will identify ways to automate updates and distribution mechanisms to provide access to the data on the web.

As additional regional datasets are integrated “horizontally” across counties, we can then “vertically” integrate these different datasets to create powerful decision-making tools. This means our users will be able to select and download any combination and any geographic portion of the regional datasets—for example, parcels, land use and water features—and expect them to layer together easily without complications of conflicting spatial projections or data attributes.

In simpler terms, MetroGIS adds value to local GIS investments. The 1999 Benefits Study showed that facilitating data sharing, coordinating data distribution and

fostering communication among GIS users are some of the activities of MetroGIS most highly valued by our stakeholders. The results of both the Benefits Study and the Fair Share Financial Study proved to the Policy Board that we should move ahead with plans to establish MetroGIS as an independent entity.



*Victoria Reinhardt
Commissioner, Ramsey County
Chair, MetroGIS Policy Board*

In January 2000, the Policy Board directed MetroGIS staff to meet with local governments to develop a joint powers agreement with current membership voting rights. After listening closely to feedback we received on the proposed cost-sharing model, we modified the model to allocate costs based more closely on benefits received. As a result, cities will pay smaller subscription fees than initially proposed and the biggest beneficiaries—regional, state and federal government—will bear a greater share of the costs. We endorsed the concept of an access fee for the private sector. We also took steps to clarify our relationship with the Metropolitan Council once we become independent.

MetroGIS is being closely watched at the national level because of its potential to provide a model for other regions and for creating a national spatial data infrastructure. We testified before Congress in July about our work. This collaboration is helping to reduce costs, leverage GIS investments and improve the efficiency of government, and that can only add to the competitive position of this region in the global economy.

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verify and install data for application development. Counties would run automated pre-processing procedures to prepare data, transform it to the common coordinate system, and upload to a MetroGIS FTP server. MetroGIS is seeking grant funding to complete the project.

Progress was made on several other regional data needs in 1999, including existing and future land use designations, census geography, and hydrography.

Other milestones

- Time extensions to Dec. 31, 2001, were approved for the Dakota, Ramsey and Scott County GIS data and cost sharing agreements.
- Anoka, Carver and Scott Counties initiated GIS user groups, and groups in Dakota, Ramsey and Washington Counties continued their activities. Hennepin County began planning to establish a local government GIS users group.

The roots of MetroGIS

The need for an organization to promote GIS and facilitate region-wide geographic data-sharing became apparent to the Metropolitan Council in 1995. The Council gauged public support for a regional GIS at the Minnesota GIS/LIS conference and two regional forums, and soon a small group of metro area GIS users began to meet. Since then, more than 150 people—representing a wide variety of agencies and organizations—have been involved in building MetroGIS.

MetroGIS is currently organized into: two advisory teams, one focused on policy, the other on technical issues; a Coordinating Committee; and a Policy Board. The advisory teams are composed of experts in the areas of policy, data content, data standards and data access. The Coordinating Committee provides a forum to discuss MetroGIS design, implementation and operations. It also defines goals and issues for the advisory teams and makes recommendations to the Policy Board.

The Policy Board is made up largely of elected officials from government organizations who have endorsed and are participating in MetroGIS. These include the seven metro area counties; the Association of Metropolitan Municipalities; the Metropolitan Chapter of the Minnesota Association of Watershed Districts; Technology Information Educational Services; and the Metropolitan Council. Other MetroGIS participants on advisory teams and the Coordinating Committee include state and federal agencies, nonprofit and private organizations, and utilities.

Mission of MetroGIS:

To provide an ongoing, stakeholder-governed, metro-wide mechanism through which participants easily and equitably share geographically referenced graphic and associated attribute data that are accurate, current, secure, of common benefit and readily usable.

MetroGIS Policy Board members:

Victoria Reinhardt, Ramsey County, chair; **John Siegfried**, Carver County, vice chair; **Jim Kordiak**, Anoka County; **Willis Branning**, Dakota County; **Randy Johnson**, Hennepin County; **Edwin Mackie**, Scott County; **Dennis Hegberg**, Washington County; **Terry Schneider and Barbara Johnson**, Metro Area Cities; **Conrad Fiskness**, Metro Area Watersheds; **Antoinette Johns**, School Districts; **Roger Williams**, Metropolitan Council.

Visit the MetroGIS website at www.metrogis.org

For a directory of available geographic data in the region, visit www.datafinder.org
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